

# OPENING/CLOSING MECHANISM FOR VALVE IN INTERNAL COMBUSTION ENGINE

**Publication number:** JP3202603

**Publication date:** 1991-09-04

**Inventor:** TAMURA MUTSUMI

**Applicant:** TOYODA AUTOMATIC LOOM WORKS

**Classification:**

- **International:** *F01L1/08; F01L13/00; F01L1/08; F01L13/00; (IPC1-7):*  
F01L1/08; F01L13/00

- **European:**

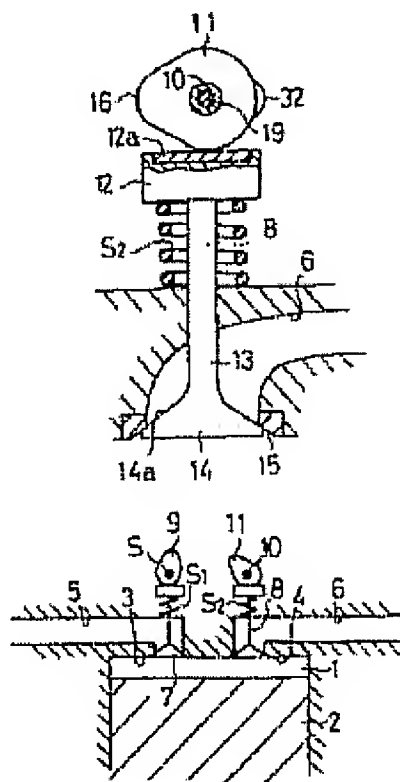
**Application number:** JP19890340846 19891229

**Priority number(s):** JP19890340846 19891229

[Report a data error here](#)

## Abstract of JP3202603

**PURPOSE:**To ensure exhaust gas of a necessary quantity for EGR process, and suppress formation of NOx by forming a cam surface for opening an exhaust valve to a certain extent on a cam so as to return the exhaust gas into a combustion chamber at the time of intake stroke of an internal combustion engine. **CONSTITUTION:**At the time of operation of an internal combustion engine, a plurality of cam shafts S, 10 are respectively rotated while synchronizing with up/down motion of a piston 2 in a combustion chamber 1. At the time of exhaust stroke, the lifter 12 of an exhaust valve 8 is pushed by the first nose part 16 of an exhaust cam 11 so as to open an exhaust port 4. On the other hand, at the time of intake stroke, an intake valve 7 is pushed by an intake cam 9 so as to open an intake port 3, and also mixture gas flows from an intake manifold 5 into the combustion chamber 1. At the same time, the lifter 12 of the exhaust valve 8 is pushed by the second nose part 32 of the exhaust cam 11 so as to open the exhaust port 4 to a certain extent. It is thus possible to make exhaust gas flow-in a little into the combustion chamber 1 so as to achieve an initial purpose.



Data supplied from the esp@cenet database - Worldwide